

**DEPARTMENT of ENVIRONMENTAL SERVICES**  
**Water Supply & Pollution Control Division - Biology Bureau**

**LAKE TROPHIC DATA**

**MORPHOMETRIC:**

Lake: KIMBALL POND	Lake Area (ha):	4.17
Town: CANTERBURY	Maximum depth (m):	1.2
County: Merrimack	Mean depth (m):	0.4
River Basin: Merrimack	Volume (m <sup>3</sup> ):	16500
Latitude: 43°19'45" N	Relative depth:	0.5
Longitude: 71°34'00" W	Shore configuration:	---
Elevation (ft): 476	Areal water load (m/yr):	5.68
Shore length (m): ---	Flushing rate (yr <sup>-1</sup> ):	14.20
Watershed area (ha): 49.0	P retention coeff.:	0.64
% watershed ponded: 0.0	Lake type:	natural w/dam

**BIOLOGICAL:**

**1 February 1991**

**23 July 1990**

DOM. PHYTOPLANKTON (% TOTAL)	#1	NO PHYTOPLANKTON	CERATIUM 90%
	#2	SAMPLES COLLECTED	
	#3	(TOO SHALLOW)	
PHYTOPLANKTON ABUNDANCE (cells/mL)			1665.0
CHLOROPHYLL-A (µg/L)			5.41
DOM. ZOOPLANKTON (% TOTAL)	#1	NO ZOOPLANKTON	NAUPLIUS LARVA (95%)
	#2	SAMPLES COLLECTED	
	#3	(TOO SHALLOW)	(NO CELL COUNTS)
ROTIFERS/LITER			
MICROCRUSTACEA/LITER			
ZOOPLANKTON ABUNDANCE (#/L)			
VASCULAR PLANT ABUNDANCE			Very abundant
SECCHI DISK TRANSPARENCY (m)			1.2 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		14.3	7.0
BACTERIA (fecal col., #/100 ml)	#1		10
	#2		20
	#3		

**SUMMER THERMAL STRATIFICATION:**

not stratified

Depth of thermocline (m): None  
Hypolimnion volume (m<sup>3</sup>): None  
Anoxic volume (m<sup>3</sup>): None

**CHEMICAL:**

Lake: KIMBALL POND  
Town: CANTERBURY

	1 February 1991		23 July 1990		
DEPTH (m)	1.0		1.0		
pH (units)	6.6		7.6		
A.N.C. (Alkalinity)	21.0		19.2		
NITRATE NITROGEN	0.11		< 0.05		
TOTAL KJELDAHL NITROGEN	0.25		0.60		
TOTAL PHOSPHORUS	0.015		0.029		
CONDUCTIVITY ( $\mu$ mhos/cm)	234.6		229.9		
APPARENT COLOR (cpu)	16		69		
MAGNESIUM			2.51		
CALCIUM			9.4		
SODIUM			29.4		
POTASSIUM			0.20		
CHLORIDE	47		53		
SULFATE	11		3		
TN : TP	24		21		
CALCITE SATURATION INDEX			1.4		

All results in mg/L unless indicated otherwise

**TROPHIC CLASSIFICATION: 1990**

D.O. S.D. PLANT CHL TOTAL CLASS

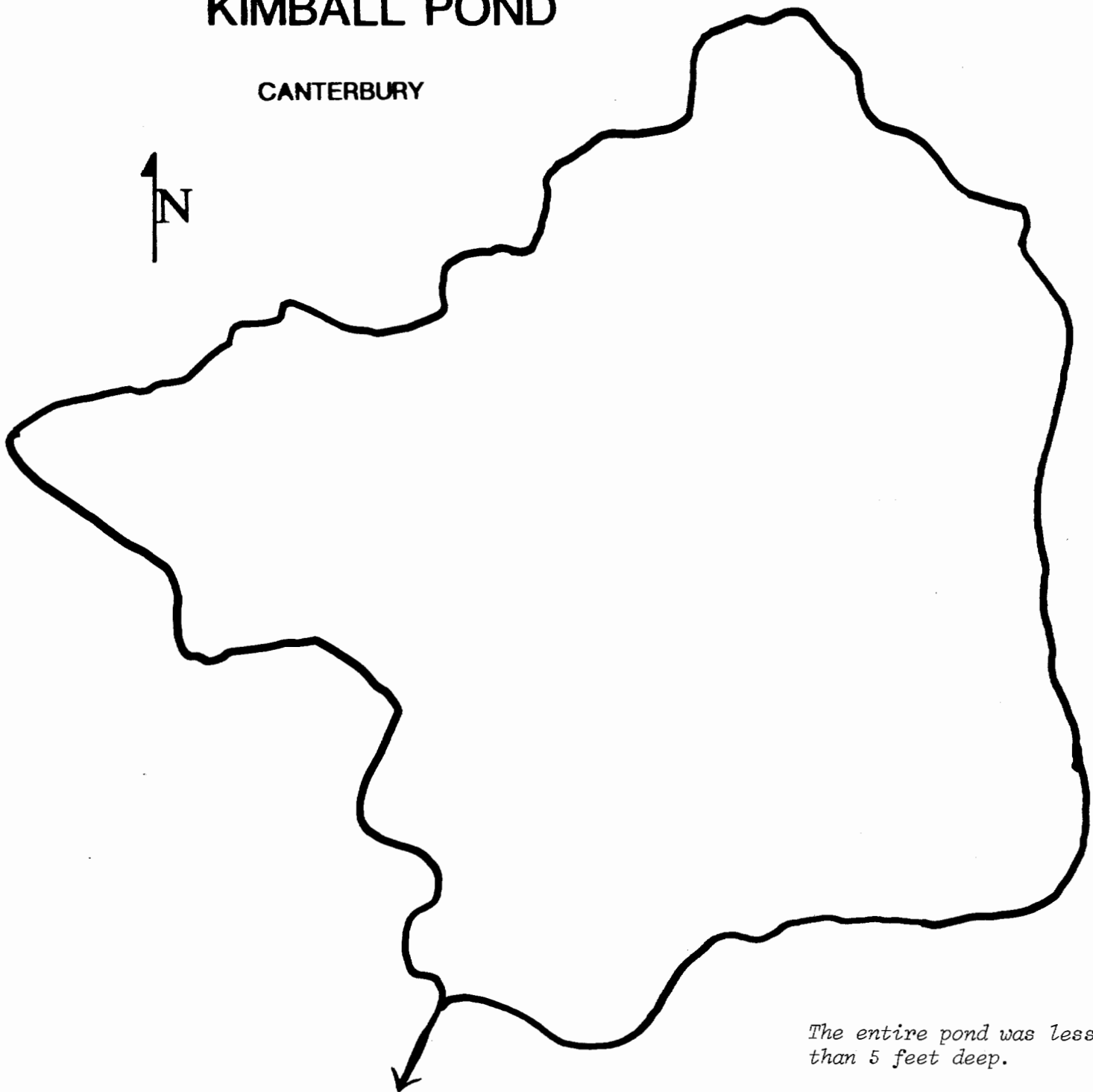
**	3	6	1	10	Eutro.
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**COMMENTS:**

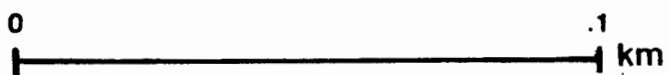
1. The entire pond was less than 5 feet deep so no depth sounding contours are provided. However, the water level at the time of sampling was about 3 feet below the normal high water mark. It appears that the beaver dam is not being maintained.
2. The pond was too shallow to collect a winter plankton sample; in the summer a horizontal net tow sample was collected but no cell counts were done.
3. No public access; we had to portage a canoe through the weeds to reach the water (plants were too abundant to use a motor).
4. Chroomonas (45%) and Oocystis (15%) were the dominant genera of wholewater phytoplankton.

# KIMBALL POND

CANTERBURY



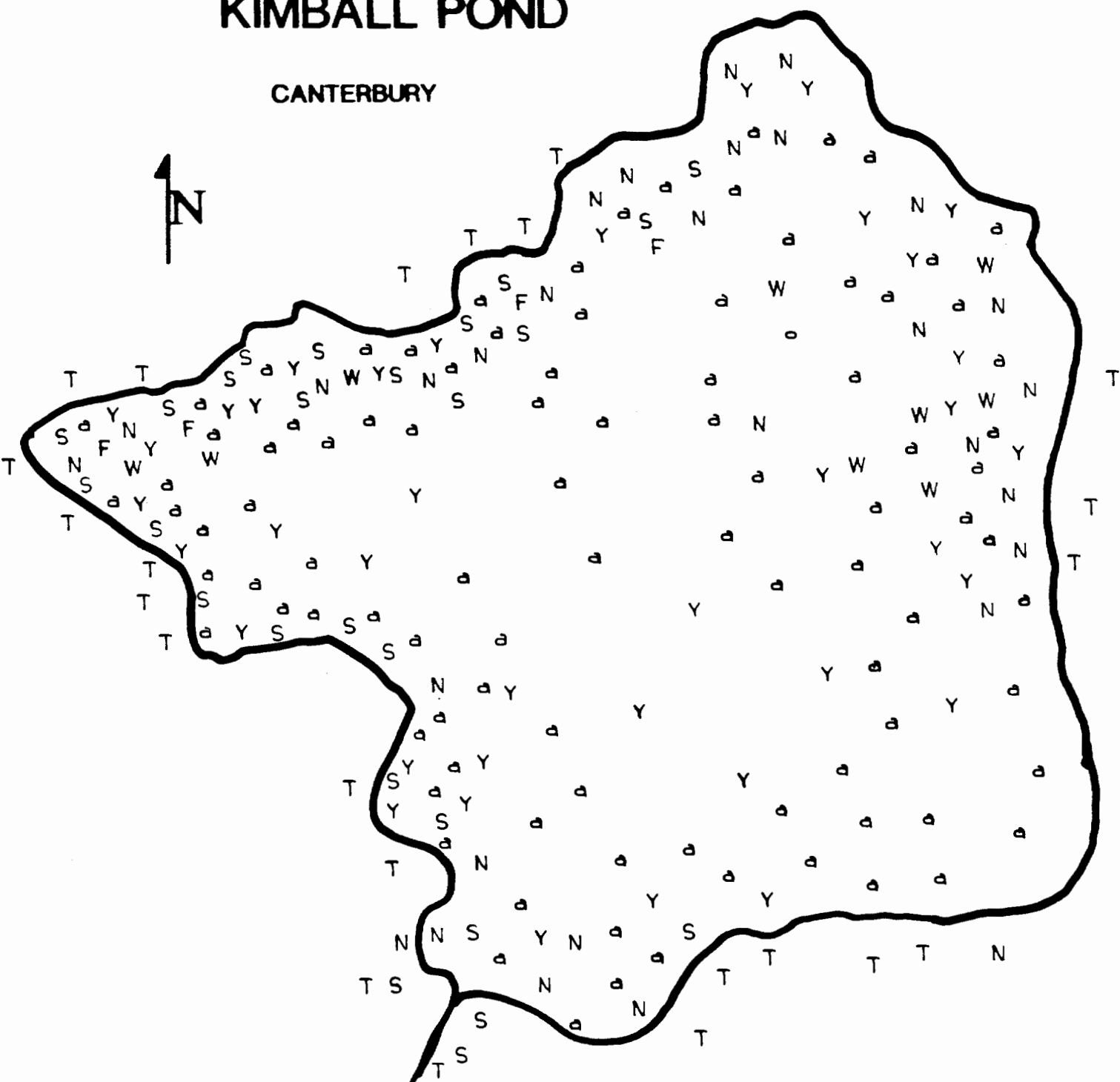
*The entire pond was less than 5 feet deep.*



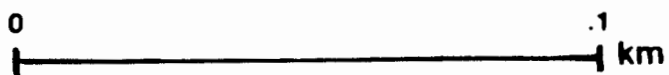
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# KIMBALL POND

CANTERBURY



Aquatic Plant Distribution Map



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